

**Broad Exhaust Fired Absorption Chiller** 

# The Honeywell CHP System Team

### Benefits of CHP

#### **Capital Cost Reduction**

Packaged integrated energy systems are anticipated to cut CHP system capital costs by 15% to 30%.

#### Shorter & Less Expensive Installation

IES can reduce CHP system installation time by as much as two-thirds, and provide corresponding installation cost savings.

#### Replicability

System designs are suitable for multiple applications in facilities around the country.

#### Optimize Facility Energy Use

Packaged systems allow facility operators to manage power generation, cooling and heating to optimize energy use as well as reduce electricity use during peak periods.

#### Simplified Systems

The use of exhaust-fired absorption chillers eliminates the need for steam/hot water generation equipment.

#### **Optimized Benefits**

The packaged CHP system with supervisory controls can be a key component in maximizing the cost effectiveness of your entire site's energy choices.

## Experience the Benefits -Become a Demonstration Site

Considering a CHP system? The U.S. Department of Energy is looking for businesses interested in serving as demonstration sites for CHP systems. For more information, please visit www.eere.energy.goy/chp/hospitals.

## **Project Overview**

Honeywell Labs has teamed with Broad USA, Chelsea Group and I.C. Thomasson to fill technology voids for Integrated Energy Systems (IES). The team is developing a set of reference designs to improve economics and simplify installation, and developing supervisory control systems with on-line optimization. In collaboration with Honeywell Energy Services and the Federal Energy Management Program, the team is installing a prototype system at the Ft. Bragg Army Base in North Carolina. The prototype features a 5-MW turbine generator supplying electricity to the base and a 1,000-ton Broad USA absorption chiller with advanced waste heat-fired or direct gas-fired design to meet air conditioning needs. Turbine exhaust can also be used to produce steam.







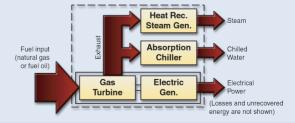




## **Objectives**

Optimize the integration of power generation and thermally activated cooling technologies for large (2-to 5-MW) IES, and field test a prototype design

- Develop a set of reference computer-based modular system designs
- Develop a supervisory control system with on-line optimization
- Install and monitor the performance of a prototype modular CHP system



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